

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 8-10-2004
 Art Unit: 1752 Phone Number 301-2-1333 Serial Number: 10/669,492
 Mail Box and Bldg/Room Location: 9560 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Photoresists with Hydroxylated, photoacid-cleavable

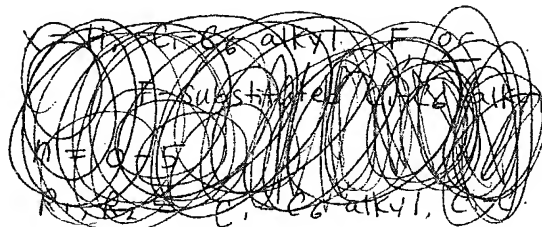
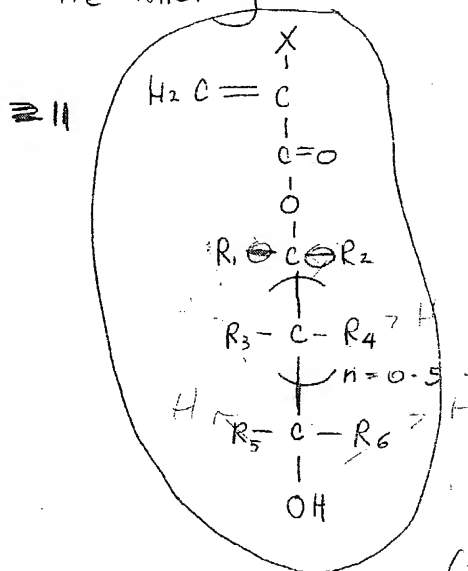
Inventors (please provide full names): Groups

Farnham, William; Feiring, Andrew; Schadt, Frank; Qiu, Weimin

Earliest Priority Filing Date: 9-24-03 US20040126697

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

— Please Search for the polymer made from the following monomer



For the definition of each variable, see Claim #6

* If too many hit, this polymer is used in a photorealist composition (together with a photoreactive component such as photoacid generator or

STAFF USE ONLY

Searcher: John Calver

Type of Search

NA Sequence (#)

Vendors and cost where applicable

STN

Searcher Phone #:

AA Sequence (#)

Dialog

Searcher Location:

Structure (#)

Questel/Orbit

Date Searcher Picked Up: 8/17/04

Bibliographic

Dr. Link

Date Completed: 8/17/04

Litigation

Lexis/Nexis

Searcher Prep & Review Time: 80

Fulltext

Sequence Systems

Clerical Prep Time:

Patent Family

WWW/Internet

Online Time: 60

Other

Other (specify)

=> d his

(FILE 'HOME' ENTERED AT 13:03:28 ON 17 AUG 2004)

FILE 'HCA' ENTERED AT 13:03:54 ON 17 AUG 2004
E US20040126697/PN

L1 1 S E3
SEL L1 RN

L2 FILE 'REGISTRY' ENTERED AT 13:04:07 ON 17 AUG 2004
6 S E1-E6

L3 FILE 'LREGISTRY' ENTERED AT 13:04:34 ON 17 AUG 2004
STR

L4 FILE 'REGISTRY' ENTERED AT 13:08:25 ON 17 AUG 2004
0 S L3
L5 STR L3
L6 33 S L5

L7 FILE 'LREGISTRY' ENTERED AT 13:09:46 ON 17 AUG 2004
STR L3
L8 SCR 2043
L9 0 S L7
L10 2 S L5 AND L8

FILE 'LREGISTRY' ENTERED AT 13:12:59 ON 17 AUG 2004

L11 FILE 'REGISTRY' ENTERED AT 13:14:34 ON 17 AUG 2004
3 S L2 AND PMS/CI
L12 3 S 97325-36-5/CRN

L13 FILE 'HCA' ENTERED AT 13:15:36 ON 17 AUG 2004
1 S L12

L14 FILE 'LREGISTRY' ENTERED AT 13:15:42 ON 17 AUG 2004
STR L5

L15 FILE 'REGISTRY' ENTERED AT 13:19:12 ON 17 AUG 2004
50 S L14 AND L8
L16 STR L5
L17 50 S L16 AND L8

FILE 'LREGISTRY' ENTERED AT 13:21:39 ON 17 AUG 2004

L18 FILE 'REGISTRY' ENTERED AT 13:23:27 ON 17 AUG 2004
33 S L5
L19 50 S L5 AND L8
DEL WALKER273/A
DEL WALKER273I/A
DEL YAO147/A
DEL CAMER162/A
DEL CAMER162A/A
DEL LEE915/A
DEL MCCLENDON/A
DEL MCCLENDON2/A

FILE 'LREGISTRY' ENTERED AT 13:27:09 ON 17 AUG 2004

L20 STR L5

FILE 'REGISTRY' ENTERED AT 13:36:52 ON 17 AUG 2004

L21 18 S L20
L22 50 S L20 AND L8
L23 STR L20
L24 STR L23
L25 13 S L24 AND L8

FILE 'LREGISTRY' ENTERED AT 13:42:21 ON 17 AUG 2004

FILE 'REGISTRY' ENTERED AT 13:45:04 ON 17 AUG 2004

L26 13 S L24 AND L8
L27 4440 S L24 AND L8 FULL
SAVE L27 LEE492/A

FILE 'HCA' ENTERED AT 13:46:17 ON 17 AUG 2004

L28 3199 S L27
L29 1389171 S PHOTORESIST? OR PHOTOPOLYMER? OR RESIST?
L30 1846 S L28 AND L29

FILE 'LREGISTRY' ENTERED AT 13:47:14 ON 17 AUG 2004

L31 STR L5
L32 STR L31

FILE 'REGISTRY' ENTERED AT 13:49:45 ON 17 AUG 2004

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L34 35 S L31 SSS FULL SUB=L27
SAVE L34 LEE492A/A

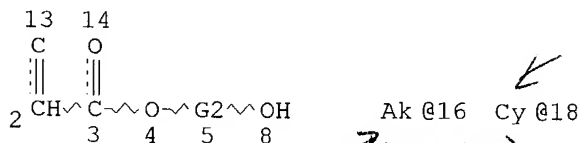
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L35 12 S L34
L36 12 S L35 OR L1
L37 6 S L36 AND (L29 OR SEMICONDUCT?)
L38 12 S L36 OR L37

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=> d que stat L34

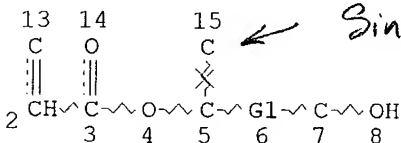
L8 SCR 2043
L24 STR



VAR G2=16/18
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS BRA AT 16
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L27 4440 SEA FILE=REGISTRY SSS FUL L24 AND L8
L31 STR

← Sin, I only added 1 Carbon because
censurer set was so small.

REP G1=(0-5) C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L34 35 SEA FILE=REGISTRY SUB=L27 SSS FUL L31.

100.0% PROCESSED 3899 ITERATIONS

35 ANSWERS

SEARCH TIME: 00.00.01

09/4151855

=> file hca

FILE 'HCA' ENTERED AT 13:52:19 ON 17 AUG 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 13 Aug 2004 VOL 141 ISS 8

FILE LAST UPDATED: 13 Aug 2004 (20040813/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

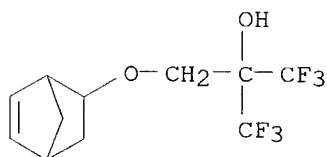
=> d L38 1-12 cbib abs hitind hitstr

L38 ANSWER 1 OF 12 HCA COPYRIGHT 2004 ACS on STN

140:347511 **Photoresists** with hydroxylated, photoacid-cleavable groups. Farnham, William Brown; Feiring, Andrew L. Schadt, Frank L., III; Qiu, Weiming (E.I. Du Pont de Nemours and Company, USA). Eur. Pat. Appl. EP 1411389 A1 20040421, 25 pp. DESIGNATED STATES: R: AT, BE, CH,

DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW.
APPLICATION: EP 2003-256267 20031003. PRIORITY: US 2002-PV415855
20021003.

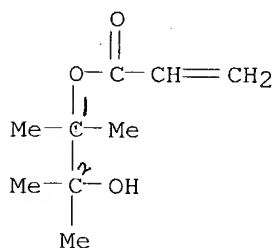
- AB The present invention pertains to photoimaging and the use of **photoresists** (pos.-working and/or neg.-working) for imaging in the production of **semiconductor** devices. The present invention also pertains to novel hydroxy ester-containing polymer compns. that are useful as base resins in **resists** and potentially in many other applications.
- IC ICM G03F007-039
ICS G03F007-004
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
- ST **photoresist** hydroxylated photoacid **semiconductor** device
- IT **Photoresists**
(**photoresists** with hydroxylated, photoacid-cleavable groups)
- IT **Semiconductor** device fabrication
(**photoresists** with hydroxylated, photoacid-cleavable groups for)
- IT 97325-36-5P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of **photoresists** with hydroxylated, photoacid-cleavable groups)
- IT **680975-27-3P 680975-29-5P 680975-30-8P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of **photoresists** with hydroxylated, photoacid-cleavable groups)
- IT 76-09-5, Pinacol 814-68-6, Acryloyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of **photoresists** with hydroxylated, photoacid-cleavable groups)
- IT **680975-27-3P 680975-29-5P 680975-30-8P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of **photoresists** with hydroxylated, photoacid-cleavable groups)
- RN 680975-27-3 HCA
- CN 2-Propenoic acid, 2-hydroxy-1,1,2-trimethylpropyl ester, polymer with 2-[(bicyclo[2.2.1]hept-5-en-2-yloxy)methyl]-1,1,1,3,3,3-hexafluoro-2-propanol and tetrafluoroethene (9CI) (CA INDEX NAME)
- CM 1
- CRN 305815-63-8
CMF C11 H12 F6 O2



CM 2

CRN 97325-36-5

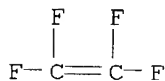
CMF C9 H16 O3



CM 3

CRN 116-14-3

CMF C2 F4



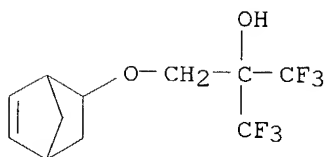
RN 680975-29-5 HCA

CN 2-Propenoic acid, 1,1-dimethylethyl ester, polymer with
2-[(bicyclo[2.2.1]hept-5-en-2-yloxy)methyl]-1,1,1,3,3,3-hexafluoro-2-
propanol, 2-hydroxy-1,1,2-trimethylpropyl 2-propenoate and
tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 305815-63-8

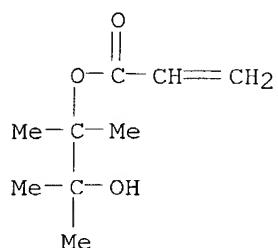
CMF C11 H12 F6 O2



CM 2

CRN 97325-36-5

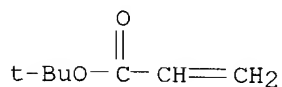
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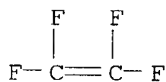
CMF C7 H12 O2



CM 4

CRN 116-14-3

CMF C2 F4



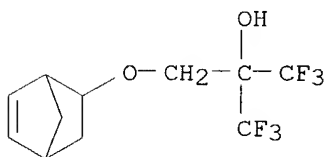
RN 680975-30-8 HCA

CN 2-Propenoic acid, 2-hydroxy-1,1,2-trimethylpropyl ester, polymer with 2-[(bicyclo[2.2.1]hept-5-en-2-yloxy)methyl]-1,1,1,3,3,3-hexafluoro-2-propanol, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate and tetrafluoroethene (9CI) (CA INDEX NAME)

CM 1

CRN 305815-63-8

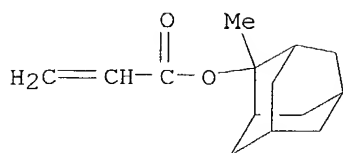
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CM 2

CRN 249562-06-9

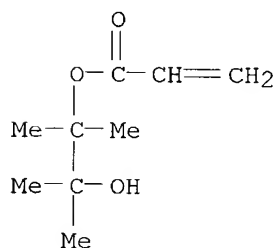
CMF C14 H20 O2



CM 3

CRN 97325-36-5

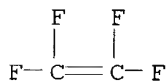
CMF C9 H16 O3



CM 4

CRN 116-14-3

CMF C2 F4



L38 ANSWER 2 OF 12 HCA COPYRIGHT 2004 ACS on STN

140:147034 Polymerizable compositions containing perfluoro group-containing compounds for optical materials and their cured products. Egawa, Masayuki; Shinno, Eri (Kyoeisha Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004035845 A2 20040205, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-198446 20020708.

AB Title comps. contain perfluoro group-containing comps.
 CH₂:CR1CO2CRf2Rf3Rf1CRf4Rf5OCOCR1:CH₂ or R2(CH₂)nOCRf2Rf3Rf1CRf4Rf5O(CH₂)n
 R2 (R1 = H, Me; Rf1 = C1-10 perfluoro group; Rf2-Rf5 = C1-18 perfluoro group; R2 = aliphatic cyclic ether; n = 1-3). Thus, a composition containing ester of
 2,5-trifluoromethyl-2,5-perfluorohexanol and acrylic acid chloride, Fluolight FA 16, and Irgacure 1173 was applied on a glass sheet and irradiated with UV light to give a test piece showing n 1.383, glass transition temperature 104°, and good scratch resistance.

IC ICM C08F020-24

ICS C08G059-30; C08J005-00; G02B001-04; G02B001-11; G02B006-12; C08L033-16

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 73

ST perfluoro polymer optical material heat resistance; scratch

resistance perfluoro polymer optical material; chem
resistance perfluoro polymer optical material; refractive index
perfluoro polymer optical material

IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(epoxy; perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

IT Epoxy resins, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorine-containing; perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

IT Chemically **resistant** materials
Optical materials
Transparent materials
(perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

IT 97821-80-2P 652132-20-2P 652132-22-4P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

IT **652132-21-3P 652132-23-5P 653570-80-0P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

IT 106-89-8P, Epichlorohydrin, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reactants in monomer preparation; perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

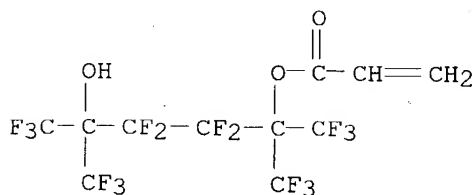
IT 814-68-6, Acrylic acid chloride 90177-96-1 652132-19-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactants in monomer preparation; perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

IT **652132-21-3P 653570-80-0P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(perfluoro-containing polymerizable compns. for optical materials with good heat and scratch **resistance**)

RN 652132-21-3 HCA
CN 2-Propenoic acid, 2,2,3,3,5,5,5-heptafluoro-4-hydroxy-1,1,4-tris(trifluoromethyl)pentyl ester, polymer with Fluolight FA 16 (9CI) (CA INDEX NAME)

CM 1
CRN 652132-20-2

CMF C11 H4 F16 O3



CM 2

CRN 618902-00-4

CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

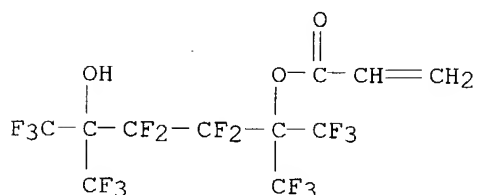
RN 653570-80-0 HCA

CN 2-Propenoic acid, 1,9-nonanediyl ester, polymer with 2,2,3,3,5,5,5-heptafluoro-4-hydroxy-1,1,4-tris(trifluoromethyl)pentyl 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 652132-20-2

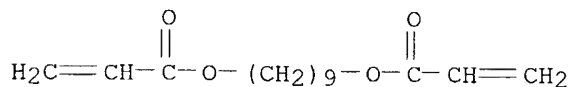
CMF C11 H4 F16 O3



CM 2

CRN 107481-28-7

CMF C15 H24 O4



L38 ANSWER 3 OF 12 HCA COPYRIGHT 2004 ACS on STN

140:146986 Degradable base-labile carbamate-containing bis(acryloyl) crosslinkers, degradable crosslinked hydrogels, and their preparation. Zhang, Hongmin; Schwarz, Alexander (USA). U.S. Pat. Appl. Publ. US 2004024136 A1 20040205, 25 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-374508 20030225. PRIORITY: US 2002-PV397909 20020723.

AB Crosslinked polymers, beads and hydrogels are made using a base-labile, carbamate-containing crosslinker, prepared by reacting a hydroxylamine with an acrylate, forming a hydroxamic acid and reacting hydroxamic acid with a

triisocyanate or tetraisocyanate.

IC ICM C08F020-54

ICS C07C327-38

NCL 525329700; 526303100; 526317100; 526319000; 560222000

CC 37-2 (Plastics Manufacture and Processing)

IT 624745-69-3P 624745-74-0P 652995-19-2P 652995-21-6P

652995-23-8P 652995-25-0P 652995-27-2P 652995-29-4P

652995-31-8P 652995-33-0P

RL: IMF (Industrial manufacture); PREP (Preparation)

(degradable base-labile carbamate-containing bis(acryloyl) crosslinkers for reaction with acrylate monomers for crosslinked hydrogels)

IT 652995-19-2P 652995-23-8P 652995-27-2P

652995-31-8P

RL: IMF (Industrial manufacture); PREP (Preparation)

(degradable base-labile carbamate-containing bis(acryloyl) crosslinkers for reaction with acrylate monomers for crosslinked hydrogels)

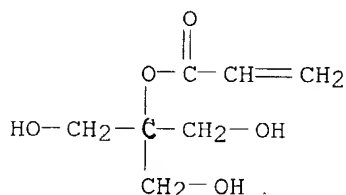
RN 652995-19-2 HCA

CN 2-Propenoic acid, 2-hydroxy-1,1-bis(hydroxymethyl)ethyl ester, polymer with N,N'-[1,6-hexanediylbis(iminocarbonyloxy)]bis[2-methyl-2-propenamide] (9CI) (CA INDEX NAME)

CM 1

CRN 652995-18-1

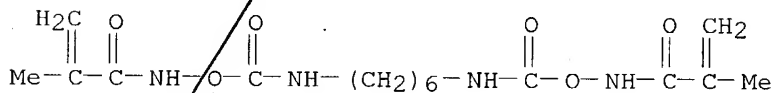
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CM 2

CRN 624745-67-1

CMF C16 H26 N4 O6



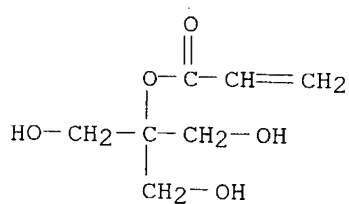
RN 652995-23-8 HCA

CN 2-Propenoic acid, 2-hydroxy-1,1-bis(hydroxymethyl)ethyl ester, polymer with N,N-dimethyl-2-propenamide and N,N'-[1,6-hexanediylbis(iminocarbonyloxy)]bis[2-methyl-2-propenamide] (9CI) (CA INDEX NAME)

CM 1

CRN 652995-18-1

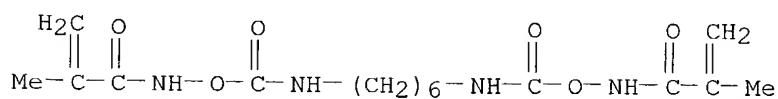
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CM 2

CRN 624745-67-1

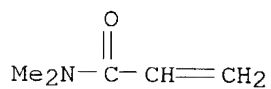
CMF C16 H26 N4 O6



CM 3

CRN 2680-03-7

CMF C5 H9 N O



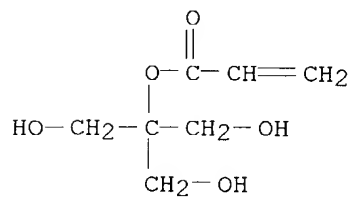
RN 652995-27-2 HCA

CN 2-Propenoic acid, 2-hydroxy-1,1-bis(hydroxymethyl)ethyl ester, polymer
with N,N'-[1,4-butanediylbis(iminocarbonyloxy)]bis[2-methyl-2-propenamide]
(9CI) (CA INDEX NAME)

CM 1

CRN 652995-18-1

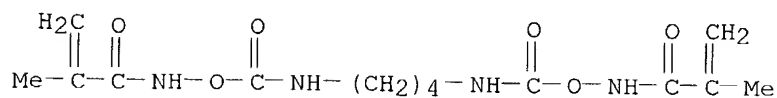
CMF C7 H12 O5



CM 2

CRN 624745-68-2

CMF C14 H22 N4 O6



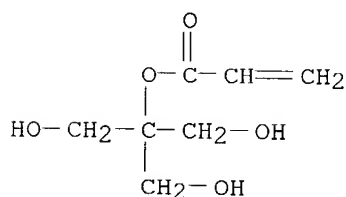
RN 652995-31-8 HCA

CN 2-Propenoic acid, 2-hydroxy-1,1-bis(hydroxymethyl)ethyl ester, polymer with N,N'-[1,4-butanediylbis(iminocarbonyloxy)]bis[2-methyl-2-propenamide] and N,N-dimethyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 652995-18-1

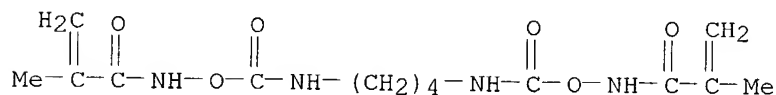
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CM 2

CRN 624745-68-2

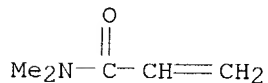
CMF C14 H22 N4 O6



CM 3

CRN 2680-03-7

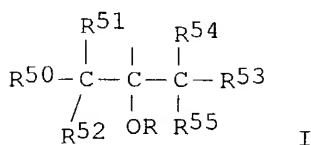
CMF C5 H9 N O



L38 ANSWER 4 OF 12 HCA COPYRIGHT 2004 ACS on STN

139:221608 Photosensitive resin composition. Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1341038 A2 20030903, 115 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2003-4254 20030226. PRIORITY: JP 2002-50031 20020226.

GI



AB The photosensitive resin composition comprises: (A) a resin containing a repeating

unit having at least two groups represented by I (R⁵⁰⁻⁵⁵ = H, F, alkyl; at least one of R⁵⁰⁻⁵⁵ = F, or an alkyl group is substituted with F; R = H, organic group); and (B) a compound capable of generating an acid by the action with one of an actinic ray and a radiation. The photosensitive resin composition is suitable used for the micro-lithog. process such as the

manufacture

of ULSIs and high capacity microchips and other photo fabrication processes.

IC ICM G03F007-004

ICS G03F007-039

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

ST **photoresist** photolithog photosensitive resin compn

IT **Photoresists**

Semiconductor device fabrication

(photosensitive resin composition for)

IT 802-93-7, 1,3-Bis-(2-Hydroxyhexafluoroisopropyl)benzene

RL: RCT (Reactant); RACT (Reactant or reagent)

(18prepn. of photosensitive resin composition for **photoresist**)

IT 107-30-2, Chloromethyl-methyl ether 108-24-7, Acetic anhydride
1826-67-1, Vinyl magnesium bromide 3188-13-4, Chloromethyl-ethyl ether
5292-43-3, tert-Butyl bromoacetate 6674-22-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of photosensitive resin composition for **photoresist**)

IT 75-07-0P, Acetaldehyde, reactions 501935-24-6P 585569-81-9P
585573-34-8P 585573-35-9P 585573-37-1P 585573-39-3P 585573-41-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of photosensitive resin composition for **photoresist**)

IT 24424-99-5DP, Di-tert-butyl dicarbonate, reaction product with hydroxyl group contained styrene copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of photosensitive resin composition for **photoresist**)

IT 585569-89-7P 585569-90-0P 585573-42-8P 585573-43-9P 585573-44-0P
585573-45-1P 585573-46-2P 585573-48-4P 585573-49-5P 585573-50-8P
585573-51-9DP, reaction product with di-t-Bu dicarbonate 585573-51-9P
585573-53-1P 585573-55-3P 585573-56-4P 585573-57-5P 585573-58-6P
585573-60-0P 585573-61-1P 585573-62-2P 585573-63-3P 585573-64-4P
585573-66-6P 585573-67-7P 585573-68-8P **585573-70-2P**
585573-71-3P 585573-73-5P 585573-74-6P 585573-75-7P 585573-76-8P
585578-38-7P 585578-39-8P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(resin; photosensitive resin composition for **photoresist** containing)

IT **585573-70-2P**

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or

engineered material use); PREP (Preparation); USES (Uses)
(resin; photosensitive resin composition for **photoresist** containing)

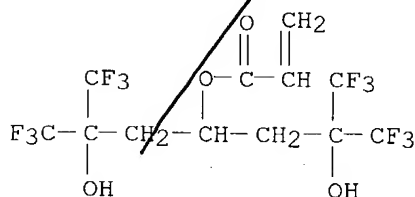
RN 585573-70-2 HCA

CN 2-Propenoic acid, 4,4,4-trifluoro-3-hydroxy-1-[3,3,3-trifluoro-2-hydroxy-2-(trifluoromethyl)propyl]-3-(trifluoromethyl)butyl ester, polymer with 1-(1,1-dimethylethoxy)-4-ethenylbenzene and 2,2,2-trifluoro-1-[4-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]cyclohexyl]-1-(trifluoromethyl)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 585573-69-9

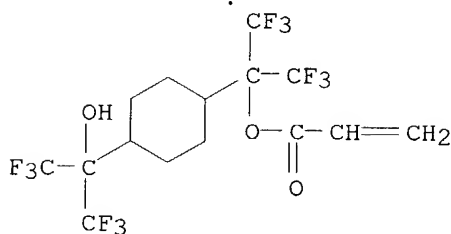
CMF C12 H10 F12 O4



CM 2

CRN 367522-45-0

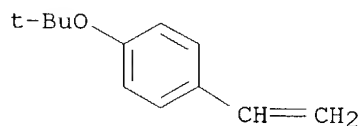
CMF C15 H14 F12 O3



CM 3

CRN 95418-58-9

CMF C12 H16 O



L38 ANSWER 5 OF 12 HCA COPYRIGHT 2004 ACS on STN

139:92766 Radiation-sensitive **resist** composition, method for pattern formation using the same, and **semiconductor** device fabrication using the same. Yokoyama, Yoshiyuki; Hattori, Koji (Hitachi Ltd., Japan).

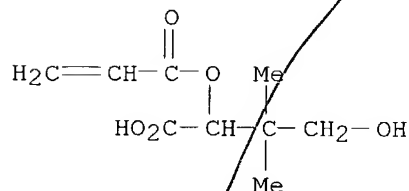
Jpn. Kokai Tokkyo Koho JP 2003195502 A2 20030709, 15 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 2001-393107 20011226.

- AB The title composition contains a polyacrylate and an acid generator, wherein the polyacrylate contains a γ -hydroxycarboxy acid group. The composition provides radiation **resists** which shows the good development properties and is suitable for far UV-exposure.
- IC ICM G03F007-038
ICS C08F020-28; C08F220-10; G03F007-039; G03F007-20; G03F007-40; H01L021-027
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 76
- ST radiation **resist** compn
- IT **Semiconductor** device fabrication
(radiation-sensitive **resist** composition, method for pattern formation using the same, and **semiconductor** device fabrication using the same)
- IT **Resists**
(radiation-sensitive; radiation-sensitive **resist** composition, method for pattern formation using the same, and **semiconductor** device fabrication using the same)
- IT 79-50-5 814-68-6, Acrylic acid chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(resin in radiation-sensitive **resist** composition)
- IT 84822-49-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(resin in radiation-sensitive **resist** composition)
- IT 556801-08-2P 556801-11-7P 556801-14-0P 556801-16-2P 556801-20-8P 556801-22-0P 556801-23-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin in radiation-sensitive **resist** composition)
- IT 556801-11-7P 556801-16-2P 556801-20-8P 556801-22-0P 556801-23-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin in radiation-sensitive **resist** composition)
- RN 556801-11-7 HCA
- CN Butanoic acid, 4-hydroxy-3,3-dimethyl-2-[(1-oxo-2-propenyl)oxy]-, polymer with 4-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

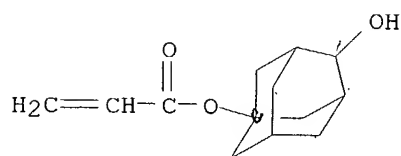
CRN 556801-10-6

CMF C9 H14 O5



CM 2

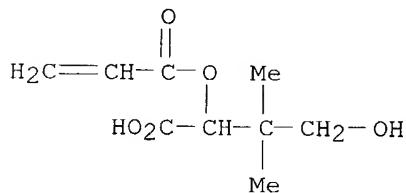
CRN 310411-18-8
CMF C13 H18 O3



RN 556801-16-2 HCA
CN Butanoic acid, 4-hydroxy-3,3-dimethyl-2-[(1-oxo-2-propenyl)oxy]-, polymer with 5-oxo-4-oxatricyclo[4.3.1.1.3,8]undec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

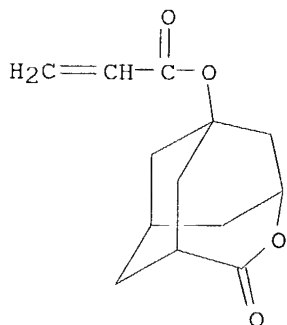
CM 1

CRN 556801-10-6
CMF C9 H14 O5



CM 2

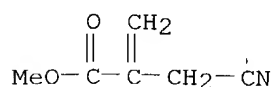
CRN 265999-35-7
CMF C13 H16 O4



RN 556801-20-8 HCA
CN Butanoic acid, 4-hydroxy-3,3-dimethyl-2-[(1-oxo-2-propenyl)oxy]-, polymer with methyl 2-(cyanomethyl)-2-propenoate (9CI) (CA INDEX NAME)

CM 1

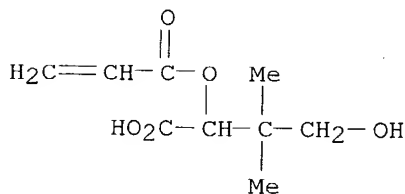
CRN 556801-19-5
CMF C6 H7 N O2



CM 2

CRN 556801-10-6

CMF C9 H14 O5



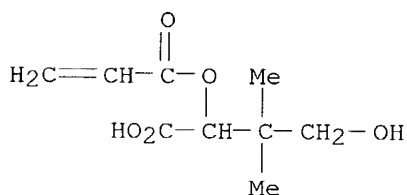
RN 556801-22-0 HCA

CN Butanoic acid, 4-hydroxy-3,3-dimethyl-2-[(1-oxo-2-propenyl)oxy]-, polymer with 4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-pentadecafluoro-2-hydroxydecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 556801-10-6

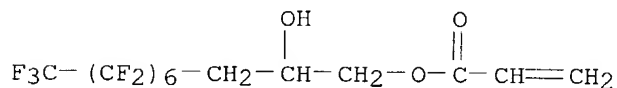
CMF C9 H14 O5



CM 2

CRN 24540-74-7

CMF C13 H9 F15 O3

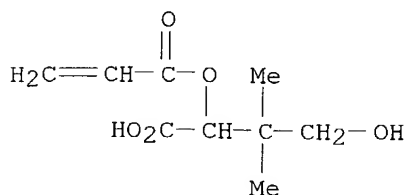


RN 556801-23-1 HCA

CN Butanoic acid, 4-hydroxy-3,3-dimethyl-2-[(1-oxo-2-propenyl)oxy]-, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-propenoate (9CI) (CA INDEX NAME)

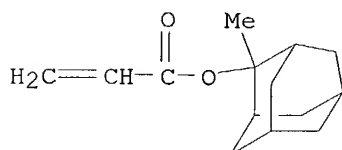
CM 1

CRN 556801-10-6
CMF C9 H14 O5



CM 2

CRN 249562-06-9
CMF C14 H20 O2



L38 ANSWER 6 OF 12 HCA COPYRIGHT 2004 ACS on STN

130:229809 Fluorine-containing monomer composition containing inorganic compound microparticles, low-refractive index material, and antireflection film. Yoshida, Tatsuo; Kimura, Yasuhiro; Watanabe, Kenji; Ikeda, Tomoyuki; Ito, Tetsuya; Goto, Yoshitaka (Nippon Oil and Fats Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11060637 A2 19990302 Heisei, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-224882 19970821.

AB The composition contains inorg. compound microparticles and monomers containing 5-100% R1OCH2C(OR2)HRC(OR4)HCH2OR3 (R1-4 = H, (meth)acryloyl, R1 and/or R2 and R3 and/or R4 are (meth)acryloyl; R = C2-12 fluoroalkylene containing ≥2 F). The composition is cured to give the title material having reflective index ≤1.49. The film comprising a transparent substrate and the material layer is also claimed. The film has high surface hardness, scratch **resistance**, and adhesion strength to a substrate.

IC ICM C08F020-22

ICS B32B007-02; B32B027-30; C08K003-00; C08L033-16; G02B001-11; B05D007-24

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 35, 38

ST fluorine monomer inorg particle compn cured; antireflection film fluoropolymer silica microparticle hardness; scratch **resistant** antireflection film acrylic fluoropolymer

IT 194877-48-0P 195008-58-3P 220857-29-4P 220857-32-9P 220857-36-3P
220857-45-4P 220857-49-8P **220857-55-6P 220857-56-7P**
220857-57-8P 220857-58-9P 220857-60-3P 220857-61-4P 220857-62-5P
220857-63-6P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(low-refractive index material for antireflection film obtained by curing of composition containing F-containing monomers and inorg. compound

microparticles)

IT 220857-55-6P 220857-56-7P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(low-refractive index material for antireflection film obtained by curing of composition containing F-containing monomers and inorg. compound microparticles)

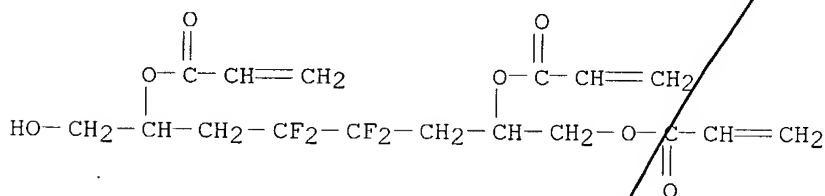
RN 220857-55-6 HCA

CN 2-Propenoic acid, 4,4,5,5,6,6,7,7-octafluoro-9-hydroxy-1,2,10-decanetriyl ester, polymer with 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 4,4,5,5-tetrafluoro-7-(hydroxymethyl)-1,2,7-heptanetriyl tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 194877-41-3

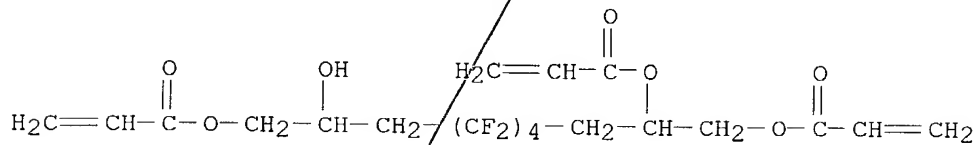
CMF C17 H20 F4 O7



CM 2

CRN 194877-38-8

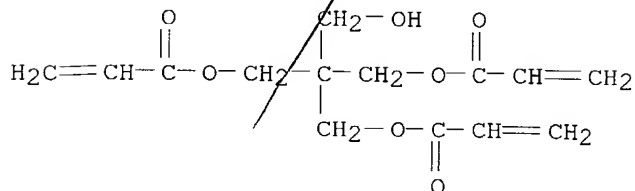
CMF C19 H20 F8 O7



CM 3

CRN 3524-68-3

CMF C14 H18 O7



RN 220857-56-7 HCA

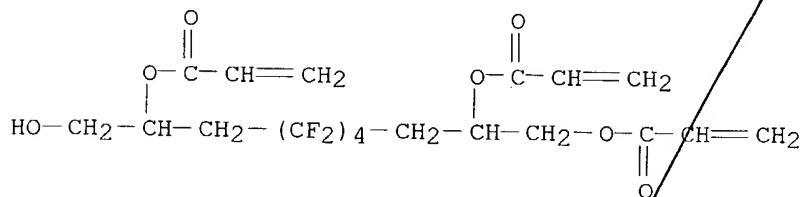
CN 2-Propenoic acid, 4,4,5,5,6,6,7,7-octafluoro-9-hydroxy-1,2,10-decanetriyl ester, polymer with 2-(hydroxymethyl)-2-[[[(1-oxo-2-propenyl)oxy]methyl]-

1,3-propanediyl di-2-propenoate and 4,4,5,5,6,6,7,7-octafluoro-9-(hydroxymethyl)-1,2,9-nonanetriyl tri-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 194877-39-9

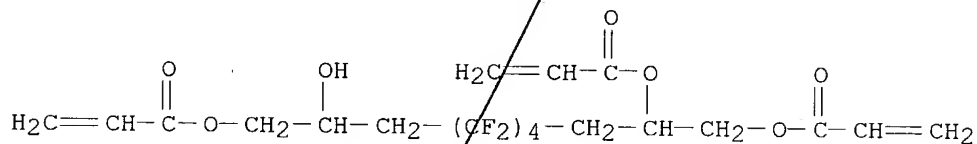
CMF C19 H20 F8 O7



CM 2

CRN 194877-38-8

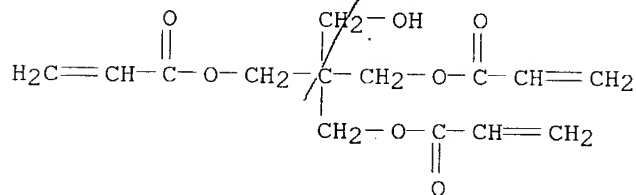
CMF C19 H20 F8 O7



CM 3

CRN 3524-68-3

CMF C14 H18 O7



L38 ANSWER 7 OF 12 HCA COPYRIGHT 2004 ACS on STN

126:205440 Resin composition for electrophotographic toner. Matsumoto, Katsuru; Tanaka, Eishi; Hirayama, Nobuhiro; Tobita, Junko (Mitsui Toatsu Chemicals, Incorporated, Japan). Eur. Pat. Appl. EP 756208 A1 19970129, 36 pp. DESIGNATED STATES: R: CH, DE, FR, GB, IT, LI, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1996-305406 19960723. PRIORITY: JP 1995-192785 19950728; JP 1995-245897 19950925; JP 1995-253325 19950929.

AB A resin composition for an electrophotog. toner comprises 5 to 95 parts by weight

of a high-mol.-weight vinyl polymer and 95 to 5 parts by weight of a low-mol.-weight vinyl polymer, the former polymer having a weight-average mol. weight

of from 200,000 to 1,000,000 and a ratio of the weight-average mol. weight to the number-average mol. weight of from 8 to 300 and the latter polymer having a weight-average

mol. weight of from 3000 to 20,000. At least one of the polymers, preferably, the high-mol.-weight vinyl polymer is a vinyl polymer which has been obtained by conducting polymerization in the presence of a monomer having

an

ionization potential of from 10.0 to 15.0 eV and a difference of from 9.0 to 15.0 eV in level between HOMO and LUMO both determined by computational chemical. The resin composition exhibits excellent charging characteristics, making it possible to minimize the amount of a charge control agent needed when formulating a toner using the composition. It may even be possible to eliminate the charge control agent altogether.

IC ICM G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9010-92-8P, Methacrylic acid-styrene copolymer 9011-13-6P, Maleic anhydride-styrene copolymer 25215-62-7P, Monobutyl maleate-styrene copolymer 26762-37-8P, Dioctyl fumarate-styrene copolymer 173934-98-0P, Dioctyl fumarate-maleic anhydride-2-methacryloyloxyethyl succinate-styrene copolymer 187877-42-5P, 2-Methacryloyloxyethyl succinate-styrene copolymer 187877-49-2P, 2-Furanylmethyl acrylate-styrene copolymer **187877-54-9P**, 2-Acryloyloxypropyl succinate-dioctyl fumarate-maleic anhydride-styrene copolymer 187877-60-7P, Dioctyl fumarate-maleic anhydride-2-methacryloyloxyethyl malonate-styrene copolymer 187877-67-4P, Dioctyl fumarate-maleic anhydride-2-methacryloyloxypropyl glutarate-styrene copolymer **187877-73-2P**, 2-Acryloyloxypropyl succinate-dioctyl fumarate-styrene copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation and use in manufacture of electrophotog. toners)

IT **187877-54-9P**, 2-Acryloyloxypropyl succinate-dioctyl fumarate-maleic anhydride-styrene copolymer **187877-73-2P**, 2-Acryloyloxypropyl succinate-dioctyl fumarate-styrene copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation and use in manufacture of electrophotog. toners)

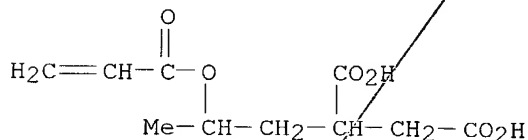
RN 187877-54-9 HCA

CN 2-Butenedioic acid (2E)-, bis(2-ethylhexyl) ester, polymer with ethenylbenzene, 2,5-furandione and [2-[(1-oxo-2-propenyl)oxy]propyl]butanedioic acid (9CI) (CA INDEX NAME)

CM 1

CRN 187877-53-8

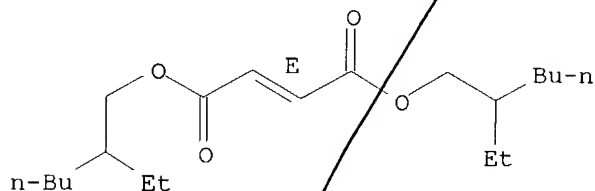
CMF C10 H14 O6



CM 2

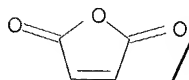
CRN 141-02-6
CMF C20 H36 O4

Double bond geometry as shown.



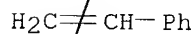
CM 3

CRN 108-31-6
CMF C4 H2 O3



CM 4

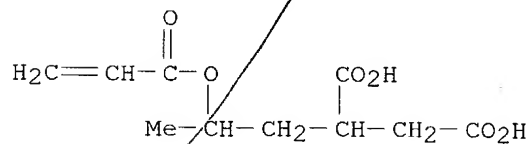
CRN 100-42-5
CMF C8 H8



RN 187877-73-2 HCA
CN 2-Butenedioic acid (2E)-, bis(2-ethylhexyl) ester, polymer with ethenylbenzene and [2-[(1-oxo-2-propenyl)oxy]propyl]butanedioic acid (9CI)
(CA INDEX NAME)

CM 1

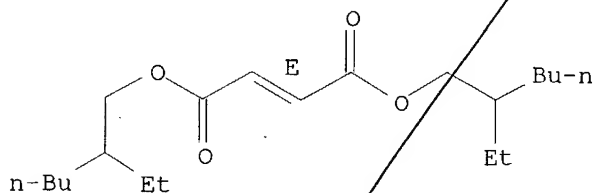
CRN 187877-53-8
CMF C10 H14 O6



CM 2

CRN 141-02-6
CMF C20 H36 O4

Double bond geometry as shown.



CM 3

CRN 100-42-5

CMF C8 H8

H₂C=CH-Ph

L38 ANSWER 8 OF 12 HCA COPYRIGHT 2004 ACS on STN

126:119374 Unsaturated polycarboxylate salts and their polymers with good chelating properties. Yamaguchi, Shigeru; Tuboi, Keisi (Nippon Shokubai Co., Ltd., Japan). Eur. Pat. Appl. EP 747343 A1 19961211, 33 pp.
DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW.
APPLICATION: EP 1996-304256 19960607. PRIORITY: JP 1995-143740 19950609; JP 1995-143742 19950609.

AB R1CH:CR2CO2CR3(CO2R4)CHR3CO2R4 [I, R1 = H, OH, CO2R5, or CO2CR3(CO2R4)CHR3CO2R4, R2 = H, Me, or CH2COOR4, R3 = H, OH, or CH2COOR4, R4 = H, Na, K, or NH4, R5 = Na, K, NH4] are manufacture by reaction of an ethylenically unsatd. carboxylic compound with a OH-containing polycarboxylic acid, with subsequent salt formation. I yield polymers having excellent chelating properties and biodegradability making them useful in detergents and as inorg.-pigment dispersing agents, water-treatment agents, and bleaching assistants for pulp.

IC ICM C07C069-675

ICS C07C067-00; C08F022-16; C11D003-37

CC 46-4 (Surface Active Agents and Detergents)

Section cross-reference(s): 35, 40, 42, 43

IT 185963-03-5P 185963-04-6P 185963-06-8P

185963-08-0P 185963-10-4P 185963-13-7P

185963-15-9P 186142-22-3P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(unsatd. polycarboxylate salts and their polymers with good chelating properties and biodegradability)

IT 185963-03-5P 185963-04-6P 185963-06-8P

185963-08-0P 185963-10-4P 185963-15-9P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(unsatd. polycarboxylate salts and their polymers with good chelating properties and biodegradability)

RN 185963-03-5 HCA

CN 1,2,3-Propanetricarboxylic acid, 2-[(3-carboxy-1-oxo-2-propenyl)oxy]-, (Z)-, polymer with 2,5-furandione and sodium 2-propenoate, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 185963-02-4

CMF (C10 H10 O10 . C4 H2 O3 . C3 H4 O2 . Na)x

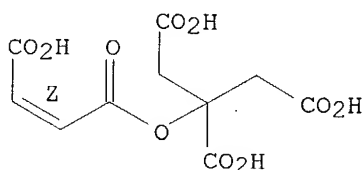
CCI PMS

CM 2

CRN 54262-12-3

CMF C10 H10 O10

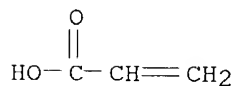
Double bond geometry as shown.



CM 3

CRN 7446-81-3

CMF C3 H4 O2 . Na

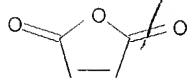


● Na

CM 4

CRN 108-31-6

CMF C4 H2 O3



RN 185963-04-6 HCA

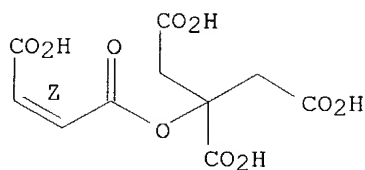
CN 1,2,3-Propanetricarboxylic acid, 2-[(3-carboxy-1-oxo-2-propenyl)oxy] -, tetrasodium salt, (Z)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 54262-13-4

CMF C10 H10 O10 . 4 Na

Double bond geometry as shown.



● 4 Na

RN 185963-06-8 HCA
 CN 1,2,3-Propanetricarboxylic acid, 2-[(3-carboxy-1-oxo-2-propenyl)oxy]-,
 (Z)-, polymer with 2,5-furandione and sodium 2-methyl-2-propenoate, sodium
 salt (9CI) (CA INDEX NAME)

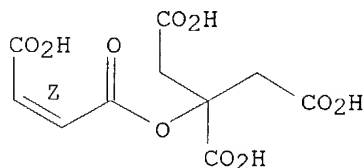
CM 1

CRN 185963-05-7
 CMF (C10 H10 O10 . C4 H6 O2 . C4 H2 O3 . Na)x
 CCI PMS

CM 2

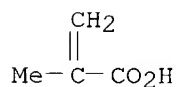
CRN 54262-12-3
 CMF C10 H10 O10

Double bond geometry as shown.



CM 3

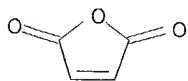
CRN 5536-61-8
 CMF C4 H6 O2 . Na



● Na

CM 4

CRN 108-31-6
 CMF C4 H2 O3



RN 185963-08-0 HCA
 CN 1,2,3-Propanetricarboxylic acid, 2-[(3-carboxy-1-oxo-2-propenyl)oxy]-, (Z)-, polymer with 2,5-furandione and 2-hydroxy-3-(2-propenyloxy)-1-propanesulfonic acid monosodium salt, sodium salt (9CI) (CA INDEX NAME)

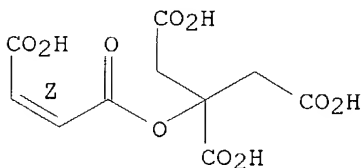
CM 1

CRN 185963-07-9
 CMF (C10 H10 O10 . C6 H12 O5 S . C4 H2 O3 . Na)x
 CCI PMS

CM 2

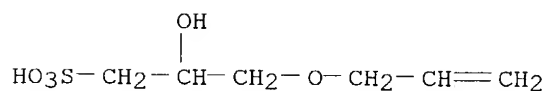
CRN 54262-12-3
 CMF C10 H10 O10

Double bond geometry as shown.



CM 3

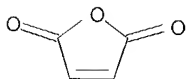
CRN 52556-42-0
 CMF C6 H12 O5 S . Na



● Na

CM 4

CRN 108-31-6
 CMF C4 H2 O3



RN 185963-10-4 HCA
CN 1,2,3-Propanetricarboxylic acid, 2-[(3-carboxy-1-oxo-2-propenyl)oxy]-,
(Z)-, polymer with 2,5-furandione and 3-methyl-3-buten-1-ol, sodium salt
(9CI) (CA INDEX NAME)

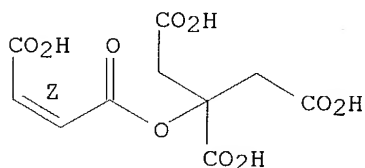
CM 1

CRN 185963-09-1
CMF (C10 H10 O10 . C5 H10 O . C4 H2 O3)x
CCI PMS

CM 2

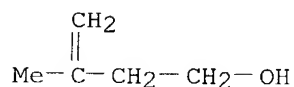
CRN 54262-12-3
CMF C10 H10 O10

Double bond geometry as shown.



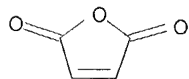
CM 3

CRN 763-32-6
CMF C5 H10 O



CM 4

CRN 108-31-6
CMF C4 H2 O3



RN 185963-15-9 HCA
CN 1,2,3-Propanetricarboxylic acid, 2-[(1-oxo-2-propenyl)oxy]-, polymer with
sodium 2-propenoate, sodium salt (9CI) (CA INDEX NAME)

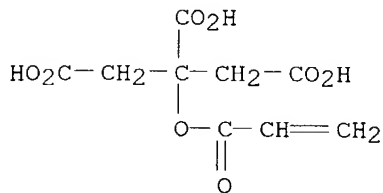
CM 1

CRN 185963-14-8
CMF (C9 H10 O8 . C3 H4 O2 . Na)x
CCI PMS

CM 2

CRN 185951-09-1

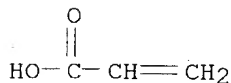
CMF C9 H10 O8



CM 3

CRN 7446-81-3

CMF C3 H4 O2 . Na



● Na

L38 ANSWER 9 OF 12 HCA COPYRIGHT 2004 ACS on STN

126:108949 Preparation of polymeric ocular inserts. Domb, Abraham J. (Yissum Research Development Company of the Hebrew University of Jerusalem, Israel). PCT Int. Appl. WO 9639095 A1 19961212, 43 pp. DESIGNATED STATES: W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1996-IB554 19960604. PRIORITY: US 1995-464330 19950605.

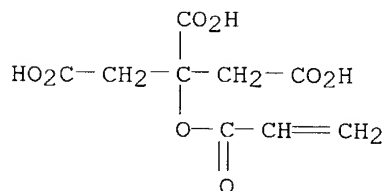
AB Absorbable ocular inserts fabricated of materials that are biol. inert, biodegradable, non-allergenic, and insol. in tear liquid, and a method for delivering substances to the eye using the ocular insert, are disclosed. In embodiment A of the invention, the insert and method include the covalent attachment of a carboxylic acid-containing drug to be delivered to a polymer that contains pendent carboxylic acid groups, through anhydride linkages. The drug is released over time by hydrolysis of the anhydride bonds. In embodiment B of the invention, a drug to be delivered (whether or not it contains a carboxylic acid group) is dispersed within an anhydride polymer or copolymer matrix and the mixture is formed into an appropriately shaped article for ocular delivery. In embodiment C of the invention, the insert method includes the covalent attachment of a carboxylic acid-containing drug to be delivered to a polymer that contains pendent carboxylic acid groups through methylene diester bonds which degrade in vivo over time. Thus, Eudragit L100 anhydrides solns. were prepared by treatment with Ac2O in CH2Cl2 and the film obtained on evaporating the solvent was treated with ibuprofen at 5-20% polymer weight. The drug release from these films was determined.

IC ICM A61F002-00
ICS C08G063-00; C08G067-00; C08G069-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 35, 37
IT 34715-60-1P, Ibuprofen acid chloride 185951-09-1P **185951-10-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of polymeric ocular inserts)
IT 57-11-4DP, Octadecanoic acid, reaction products with polymethacrylate
derivs., biological studies 9002-89-5DP, PVA, reaction products with
carboxylic drugs 9003-01-4DP, Polyacrylic acid, anhydrides, reaction
products with carboxylic drugs 9004-34-6DP, Cellulose, esters, reaction
products with carboxylic drugs, biological studies 9004-54-0DP, Dextran,
reaction products with carboxylic drugs, biological studies 9004-61-9DP,
Hyaluronic acid, reaction products with carboxylic drugs 9005-82-7DP,
Amylose, reaction products with carboxylic drugs 22204-53-1DP, Naproxen,
derivs., reaction products with polymethacrylates 25086-15-1DP, Eudragit
L 100, anhydrides, reaction products with carboxylic drugs 25087-26-7DP,
Poly(methacrylic acid), anhydrides, reaction products with carboxylic
drugs 26009-03-0DP, Polyglycolic acid, anhydrides, reaction products
with carboxylic drugs 26099-09-2DP, Poly(maleic acid), anhydrides,
reaction products with carboxylic drugs 26124-68-5DP, Polyglycolic acid,
anhydrides, reaction products with carboxylic drugs 34715-60-1DP,
Ibuprofen acid chloride, reaction products with polyanhydrides
76050-42-5DP, Carbopol 940, anhydrides, reaction products with carboxylic
drugs 78644-42-5DP, Polymalic acid, anhydrides, reaction products with
carboxylic drugs 82419-36-1DP, Ofloxacin, derivs., reaction products
with polymethacrylates **185951-10-4DP**, anhydrides, reaction
products with carboxylic drugs
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(preparation of polymeric ocular inserts)
IT **185951-10-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of polymeric ocular inserts)
RN 185951-10-4 HCA
CN 1,2,3-Propanetricarboxylic acid, 2-[(1-oxo-2-propenyl)oxy]-, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 185951-09-1

CMF C9 H10 O8



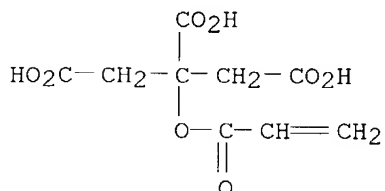
IT **185951-10-4DP**, anhydrides, reaction products with carboxylic drugs
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(preparation of polymeric ocular inserts)

RN 185951-10-4 HCA
CN 1,2,3-Propanetricarboxylic acid, 2-[(1-oxo-2-propenyl)oxy]-, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 185951-09-1

CMF C9 H10 O8



L38 ANSWER 10 OF 12 HCA COPYRIGHT 2004 ACS on STN

112:160040 Preparation of guerbet citrate polyesters and their use as mold release agents for polycarbonates. O'Lenick, Anthony J., Jr. (USA). U.S. US 4868236 A 19890919, 9 pp. (English). CODEN:USXXAM. APPLICATION: US 1989-300473 19890123.

AB Hydrophobic (polyoxyalkylene) guerbet citrate esters (I), prepared by reaction of a guerbet alc. or a guerbet alc. alkoxylate with citric acid (II), and in a subsequent step, a crosslinking diacid, are useful as mold release agents for polycarbonate compns. Thus, guerbet alc. citrate 436.0, adipic acid 146.0, and Sn oxide catalysts 2.0 g were reacted at 160-200° allowing H2O to distill off under vacuum to give the ester (III) without addnl. purification. The III was used to give polycarbonates of high clarity and low volatility.

IC ICM C07C069-704

ICS C08K005-11

NCL 524308000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 23, 37

IT 125912-60-9 125912-63-2 125930-70-3 **125978-40-7**

125978-41-8 125978-42-9 126021-92-9 126021-93-0 126121-38-8

126139-76-2 126139-77-3 126160-69-8

RL: USES (Uses)

(mold release agents, for polycarbonates, guerbet citrate precursor for)

IT **125978-40-7**

RL: USES (Uses)

(mold release agents, for polycarbonates, guerbet citrate precursor for)

RN 125978-40-7 HCA

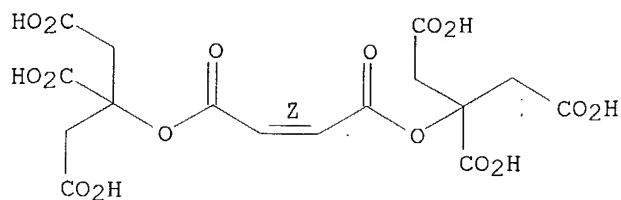
CN Oxirane, methyl-, polymer with oxirane, (Z)-2,2'-[(1,4-dioxo-2-butene-1,4-diyl)bis(oxy)]bis[1,2,3-propanetricarboxylate] (6:1), hexakis(2-octyldodecyl) ether, block (9CI) (CA INDEX NAME)

CM 1

CRN 177570-55-7

CMF C16 H16 O16

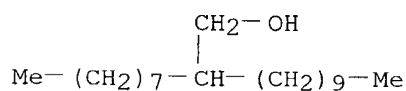
Double bond geometry as shown.



CM 2

CRN 5333-42-6

CMF C20 H42 O



CM 3

CRN 106392-12-5

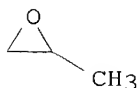
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 4

CRN 75-56-9

CMF C3 H6 O



CM 5

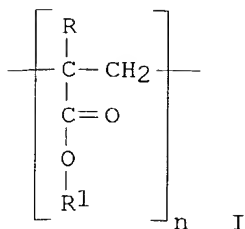
CRN 75-21-8

CMF C2 H4 O



L38 ANSWER 11 OF 12 HCA COPYRIGHT 2004 ACS on STN
 101:211648 High polymeric substance having saccharide side chains. Kawasaki,
 Takao; Osaka, Yoshiaki; Yamaguchi, Yukiharu; Ono, Saichi (Kureha Chemical
 Industry Co., Ltd., Japan). U.S. US 4465827 A 19840814, 10 pp.
 Cont.-in-part of U.S. 4,328,337. (English). CODEN: USXXAM. APPLICATION:
 US 1981-290206 19810805. PRIORITY: US 1979-105653 19791220.

GI



AB The title compds. represented by the structure I [R = H, Me; R¹ = a residue of a saccharide selected from glucose, fructose, maltose, mannose, lactose, and cellobiose (acyl-bonded at 1-position), n = 10-1000], useful for medical treatments such as an ointment of drugs for dermal diseases (data given), artificial eye lens and artificial synovia (no data), were prepared. Thus, 3,4,6-tri-O-acetyl- α -glucose 1,2-(Et orthoacetate) was treated with methacrylic acid to give 1-O-methacryloyl-2,3,4,6-tetra-O-acetyl- α -glucose, which was polymerized by heating in DMF in the presence of azobisisobutyronitrile at 65° for 12 h and the product was deacetylated with NaOMe-MeOH to give poly(1-O-methacryloyl- α -D-glucose).

IC C07H001-00

NCL 536018600

CC 33-5 (Carbohydrates)

Section cross-reference(s): 35, 63

IT 92832-56-9P 92832-58-1P **92832-60-5P** 92832-62-7P
92832-64-9P 92832-66-1P 92832-68-3P 92832-69-4P 92936-12-4P
92936-14-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT **92832-60-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 92832-60-5 HCA

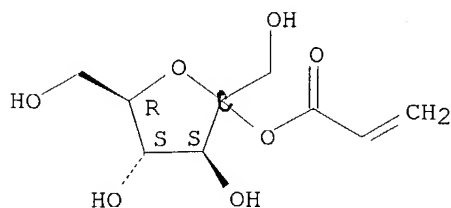
CN D-Fructofuranose, 2-(2-propenoate), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 92832-59-2

CMF C9 H14 O7

Absolute stereochemistry.



L38 ANSWER 12 OF 12 HCA COPYRIGHT 2004 ACS on STN

101:74415 Process and composition for coating a metallic substrate with a polymeric film. Cesca, Sebastiano; Priola, Aldo; Renzi, Fiorenzo (Anic S.p.A., Italy). Eur. Pat. Appl. EP 103332 A1 19840321, 24 pp. DESIGNATED

John Calve EIC- 1700

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703-308-4139

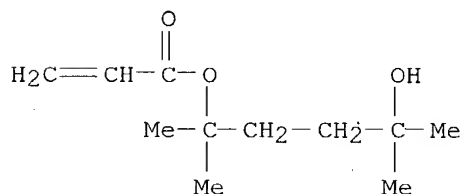
STATES: R: AT, BE, CH, DE, FR, GB, LI, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1983-201267 19830902. PRIORITY: IT 1982-23291 19820915.

- AB Coatings with good adhesion and **resistance** to impact, bending, and corrosion are applied by covering metals with aqueous mixts. of CH₂:C(R₁)CO₂ZC(R₂)(R₃)OH (R₁ = H or Me; R₂, R₃ = hydrocarbyl; Z = C₂-10 alkylene or alkenylene), copolymerizable or nonpolymerizable acids, and polymerization catalysts, and heating at ≤180°. Thus, degreased steel plates were dipped for 2 min in a solution (pH 2.72) of 20 g 2-hydroxy-2-methylpropyl acrylate (I) [23261-56-5], 2 g acrylic acid, 0.4 mL tert-BuOOH [75-91-2], and 180 mL H₂O, rinsed, dried 1 h in air, and heated 30 min at 140° to give a copolymer [91276-97-0] film (.apprx.50 g/m²) with crosshatch adhesion 100%, flex **resistance** (ASTM D-522) very good, shock **resistance** good, and salt fog corrosion **resistance** 250 h; compared with 100, very good, good, and 150, resp., for a film containing 4-hydroxybutyl acrylate in place of I and cured 30 min at 200°.
- IC B05D007-14; C09D003-80; C09D003-81; B05D003-02
- CC 42-7 (Coatings, Inks, and Related Products)
- IT 28517-21-7 91276-92-5 **91276-94-7 91276-96-9**
91276-97-0
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, for metals, in-situ preparation of)
- IT **91276-94-7 91276-96-9**
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, for metals, in-situ preparation of)
- RN 91276-94-7 HCA
- CN 2-Propenoic acid, polymer with 4-hydroxybutyl 2-propenoate and 4-hydroxy-1,1,4-trimethylpentyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 91276-93-6

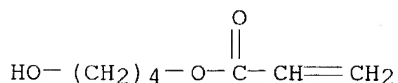
CMF C11 H20 O3



CM 2

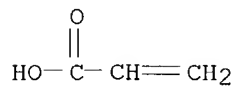
CRN 2478-10-6

CMF C7 H12 O3



CM 3

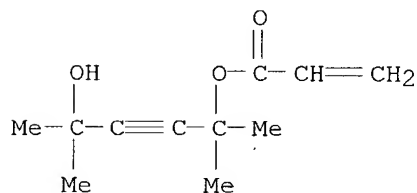
CRN 79-10-7
CMF C3 H4 O2



RN 91276-96-9 HCA
CN 2-Propenoic acid, polymer with 2-hydroxyethyl 2-propenoate and
4-hydroxy-1,1,4-trimethyl-2-pentynyl 2-propenoate (9CI) (CA INDEX NAME)

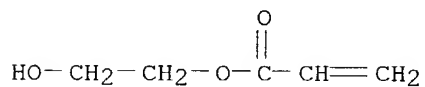
CM 1

CRN 91276-95-8
CMF C11 H16 O3



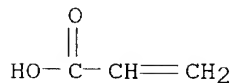
CM 2

CRN 818-61-1
CMF C5 H8 O3



CM 3

CRN 79-10-7
CMF C3 H4 O2



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